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ABSTRACT of the DISCLOSURE

Disclosed is an ISFET comprising a H^+ -sensing membrane consisting of RF-sputtering a-WO3. The a-WO3/SiO2-gate ISFET of the present invention is very sensitive in aqueous solution, and particularly in acidic aqueous solution. The sensitivity of the present ISFET ranges from 50 to 58 mV/pH. In addition, the disclosed ISFET has high linearity. Accordingly, the disclosed ISFET can be used to detect effluent.